CONTENTS OF VOLUME 39

Volume 39 Nos. 1–3 January/February 1996

Preface xi

Acknowledgements xiii

1. INTRODUCTION

RICHARD A. SIMS, IAN G.W. CORNS, and KAREL KLINKA / Introduction – Global to Local: Ecological Land Classification 1

J. STAN ROWE / Land Classification and Ecosystem Classification 11

2. GLOBAL FRAMEWORKS

ROBERT G. BAILEY / Multi-Scale Ecosystem Analysis 21

IAN B. MARSHALL, C.A. SCOTT SMITH, and CORRINE J. SELBY / A National Ecosystems Framework for Monitoring and Reporting on Environmental Sustainability in Canada 25

R.G.H. BUNCE, C.J. BARR, M.K. GILLESPIE, and D.C. HOWARD / The ITE Land Classification: Providing an Environmental Stratification of Great Britain 39

FIVOS PAPADIMITRIOU and PAOLA MAIROTA / Spatial Scale-Dependent Policy Planning for Land Management in Southern Europe 47

3. REGIONAL FRAMEWORKS

PETER W.C. UHLIG and JAMES K. JORDAN / A Spatial Hierarchical Framework for the Co-Management of Ecosystems in Canada and the United States for the Upper Great Lakes Region 59

DAN S. HANSON and BRYAN HARGRAVE / Development of a Multilevel Ecological Classification System for the State of Minnesota 75

AJITH H. PERERA, JAMES A. BAKER, LAWRENCE E. BAND, and DAVID J.B. BALDWIN / A Strategic Framework to Eco-Regionalize Ontario 85

A. BANNER, D.V. MEIDINGER, E.C. LEA, R.E. MAXWELL, and B.C. VON SACKEN / Ecosystem Mapping Methods for British Columbia 97

S. MAH, S. THOMSON, and D. DEMARCHI / An Ecological Framework for Resource Management in British Columbia 119

ANDRÉ ROBITAILLE and JEAN-PIERRE SAUCIER / Land District, Ecophysiographic Units and Areas: The Landscape Mapping of the Ministère des Ressources Naturalles du Québec 127

4. SUBREGIONAL FRAMEWORKS

BRUCE E. MATSON and RANDAL G. POWER / Developing an Ecological Land Classification for the Fundy Model Forest, Southeastern New Brunswick, Canada 149

PATRICK BEAUCHESNE, JEAN-PIERRE DUCRUC, and VINCENT GERARDIN / Ecological Mapping: A Framework for Delimiting Forest Management Units 173

MARIE-LOUISE SMITH and CONSTANCE CARPENTER / Application of the USDA Forest Service National Hierarchical Framework of Ecological Units at the Sub-Regional Level: The New England-New York Example 187

DENES BAJZAK and B.A. ROBERTS / Development of Ecological Land Classification and Mapping in Support of Forest Management in Northern Newfoundland, Canada 199

W. HENRY McNAB / Classification of Local- and Landscape-Scale Ecological Types in the Southern Appalachian Mountains 215

5. LOCAL FRAMEWORKS

BRIAN D. HARVEY, PIERRE CARTIER, YVES BERGERON, and PHILIPPE NOLET / Development of a Practical Forest Ecosystem Classification from Existing Biophysical Studies: An Approach Used in Northwestern Quebec 231

PIERRE CARTIER, BRIAN D. HARVEY, and YVES BERGERON / A Forest Ecosystem Guide for the Amos Lowlands Ecological Region, Northwestern Quebec: A Forest Management Approach 249

S. KOJIMA / Ecosystem Types of Boreal Forest in the North Klondike River Valley, Yukon Territory, and Their Productivity Potentials 265

M.H. JOHNSTON and J.A. ELLIOTT / Impact of Logging and Wildfire on an Upland Black Spruce Community in Northwestern Ontario 283

WAYNE K. CLATTERBUCK / A Community Classification System for Forest Evaluation: Development, Validation, and Extrapolation 299

KATHLEEN A. YOKE and JOHN C. RENNIE / Landscape Ecosystem Classification in the Cherokee National Forest, East Tennessee, U.S.A. 323

DAVID H. ARNOLD, GLENDON W. SMALLEY, and EDWARD R. BUCKNER / Landtype-Forest Community Relationships: A Case Study on the Mid-Cumberland Plateau 339

B.A. ROBERTS, E.F. WOODROW, DENES BAJZAK, and S.M. OSMOND / A Cooperative, Intergrated Project to Classify Forest Sites in Newfoundland 353

6. DATABASE MANAGEMENT

G.M. BRITTON, D.V. MEIDINGER, and A. BANNER / The Development of an Ecological Classification Data Management and Analysis System for British Columbia 365

DAVID C. HOWARD and R.G.H. BUNCE / The Countryside Information System: A Strategic-Level Decision Support System 373

7. GLOBAL TO LOCAL MODELLING

MORNA K. GILLESPIE, D.C. HOWARD, M.J. NESS, and R.M. FULLER / Linking Satellite and Field Survey Data, Through the Use of GIS, as Implemented in Great Britain in the Countryside Survey 1990 Project 385

DANIEL W. McKENNEY, BRENDAN G. MACKEY, and RICHARD A. SIMS / Primary Databases for Forest Ecosystem Management – Examples from Ontario and Possibilities for Canada: NatGRID 399

SYLVIE GAUTHIER, ALAIN LEDUC, and YVES BERGERON / Forest Dynamics Modelling under Natural Fire Cycles: A Tool to Define Natural Mosaic Diversity for Forest Management 417

MICHAEL J. GLUCK and ROBERT S. REMPEL / Structural Characteristics of Post-Wildfire and Clearcut Landscapes 435

8. SOIL MOISTURE REGIME AND SITE EVALUATION

G. GEOFF WANG and KAREL KLINKA / Classification of Moisture and Aeration Regimes in Sub-Boreal Forest Soils 451

RICHARD A. SIMS, KENNETH A. BALDWIN, H. MAUREEN KERSHAW, and YONGHE WANG / Tree Species in Relation to Soil Moisture Regime in Northwestern Ontario, Canada 471

G.J. KAYAHARA, K. KLINKA, and L.M. LAVKULICH / Effect of Decaying Wood on Eluviation, Podzolization, Acidification, and Nutrition in Soils with Different Moisture Regimes 485

9. FOREST SITE QUALITY AND PRODUCTIVITY

WILLARD H. CARMEAN / Forest Site-Quality Estimation Using Forest Ecosystem Classification in Northwestern Ontario 493

B.A. ROBERTS and DENES BAJZAK / Site Characteristics, Growth and Nutrition of Natural Red Pine Stands in Newfoundland 509

I.D. HOLLINGSWORTH, R.W. FITZPATRICK, and R. BOARDMAN / A Soil-Site Evaluation Index of Productivity in Intensively Managed *Pinus Radiata* (D. Don) Plantations in South Australia 531

10. ELC-BASED MANAGEMENT

D.B. LINDENMAYER and R.B. CUNNINGHAM / A Habitat-Based Microscale Forest Classification System for Zoning Wood Production Areas to Conserve a Rare Species Threatened by Logging Operations in South-Eastern Australia 543

DOUGLAS J. McRAE / Use of Forest Ecosystem Classification Systems in Fire Management 559

L.J. MOORES, B. PITTMAN, and G. KITCHEN / Forest Ecological Classification and Mapping: Their Application for Ecosystem Management in Newfoundland 571

GLENDON W. SMALLEY, LORENDA B. SHARBER, and JOHN C. GREGORY / Ecological Land Classification as a Basic Theme for the Management of Wildlands in Tennessee: A Start 579

11. ELC-BASED RESEARCH

WILLIAM H. PARKER, ANNETTE VAN NIEJENHUIS, and JOELL WARD / Genecological Variation Corresponding to Forest Ecosystem Classification Vegetation and Soil Types for Jack Pine and Black Spruce from Northwestern Ontario 589

PAL VARGA and KAREL KLINKA / Diameter Distribution of Some Subalpine Fir Stands in Central British Columbia 601

Authors Index of Volume 39 611

Contents of Volume 39 613